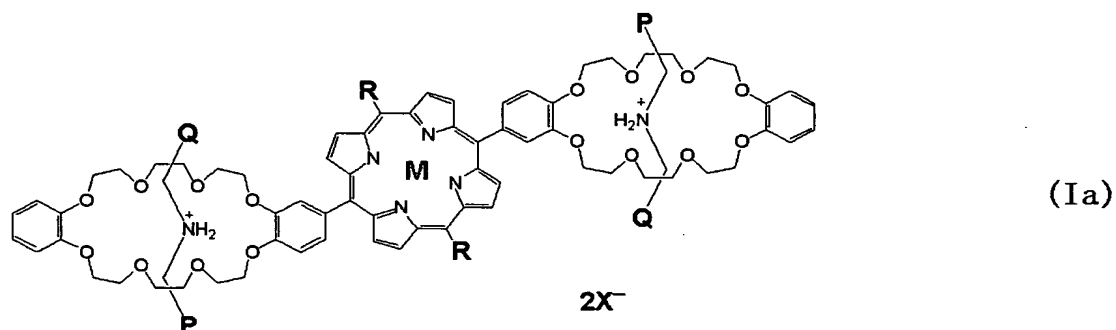


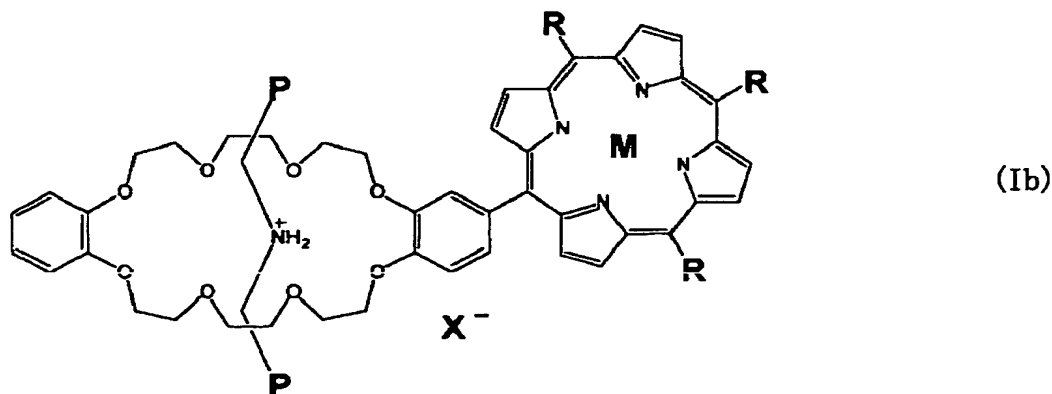
CLAIMS

1. A monomer represented by the following general formula (Ia):



5 wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, Q represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom.

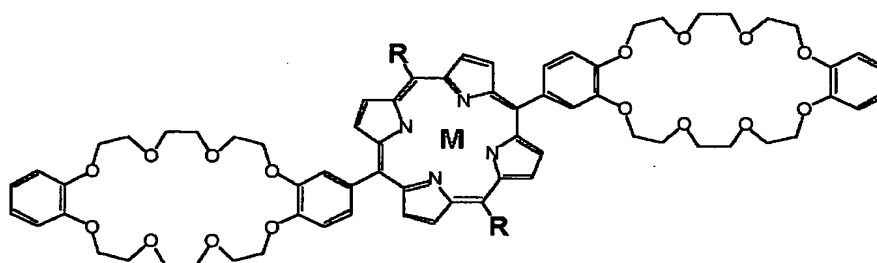
2. A monomer represented by the following general formula (Ib):



wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom.

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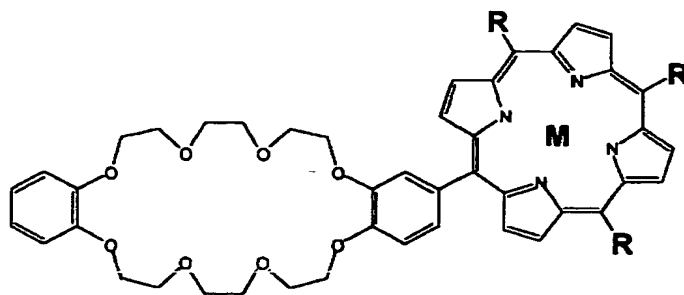
3. A compound represented by the following general formula (IIIa):



(IIIa)

wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands and R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups.

4. A compound represented by the following general formula (IIIb):



(IIIb)

wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands and R

represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups.

5. A secondary ammonium salt represented by the following general formula (IVa):



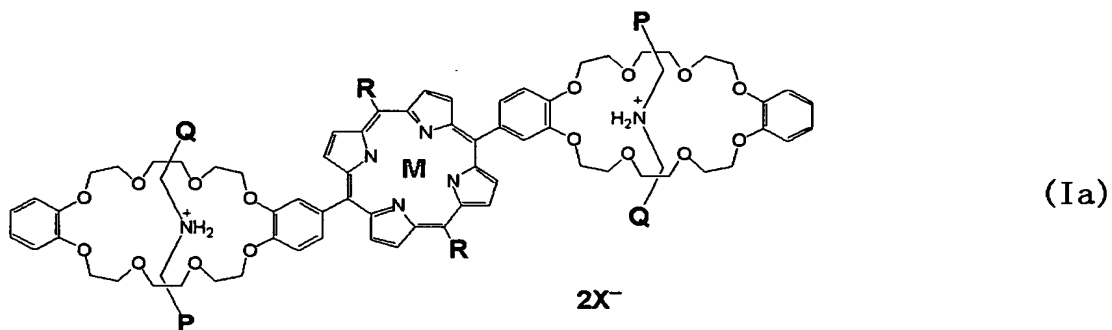
wherein P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, Q represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom.

6. A secondary ammonium salt represented by the following general formula (IVb):

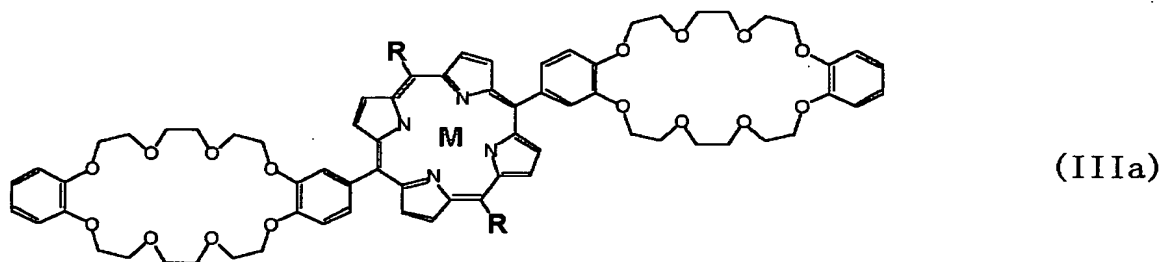


wherein P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, and X represents an arbitrary anion atom.

7. A process for the preparation of a monomer represented by the following general formula (Ia):



wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, Q represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom, said process comprising reacting a compound represented by the following general formula (IIIa):

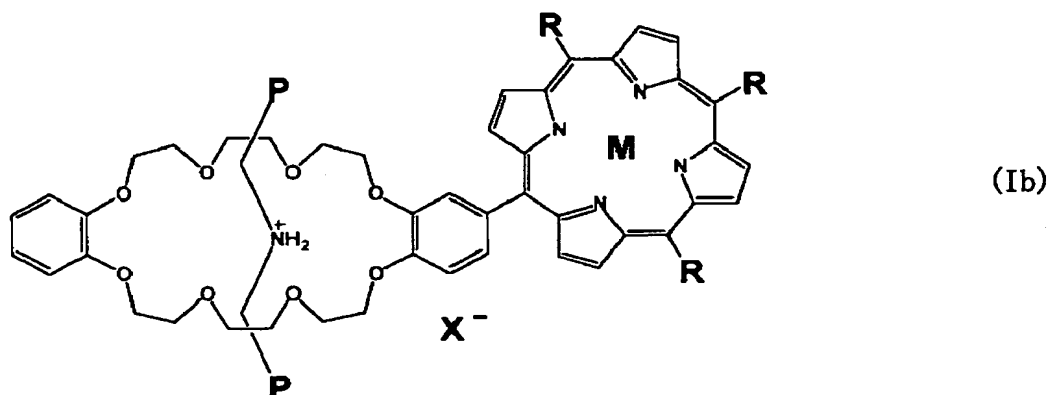


wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands and R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, with a secondary ammonium salt represented by the following general formula (IVa):

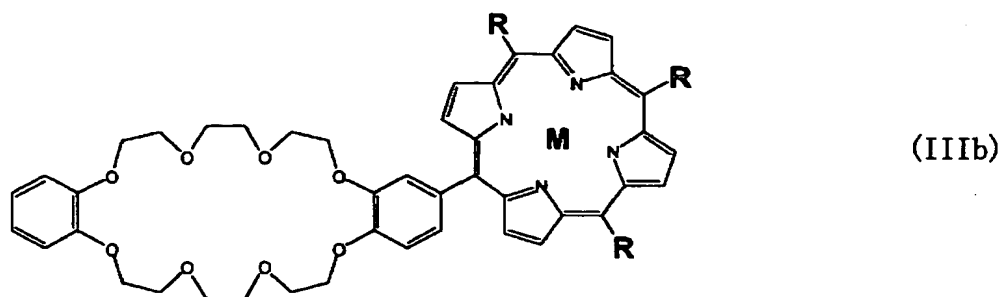


wherein P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, Q represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom, in a solvent.

8. A process for the preparation of a monomer represented by the following general formula (Ib):



wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom, said process comprising reacting a compound represented by the following general formula (IIIb):



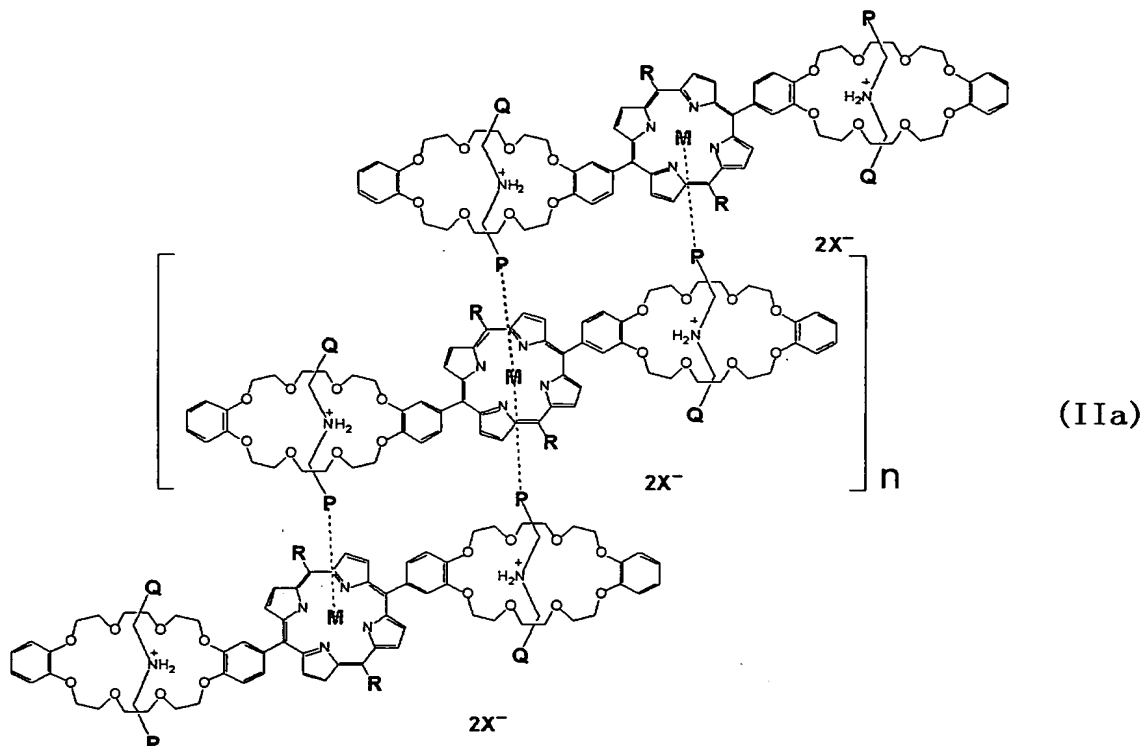
wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands and R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, with a secondary ammonium salt represented by the following general formula (IVb):



wherein P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, and X represents an arbitrary anion atom, in a solvent.

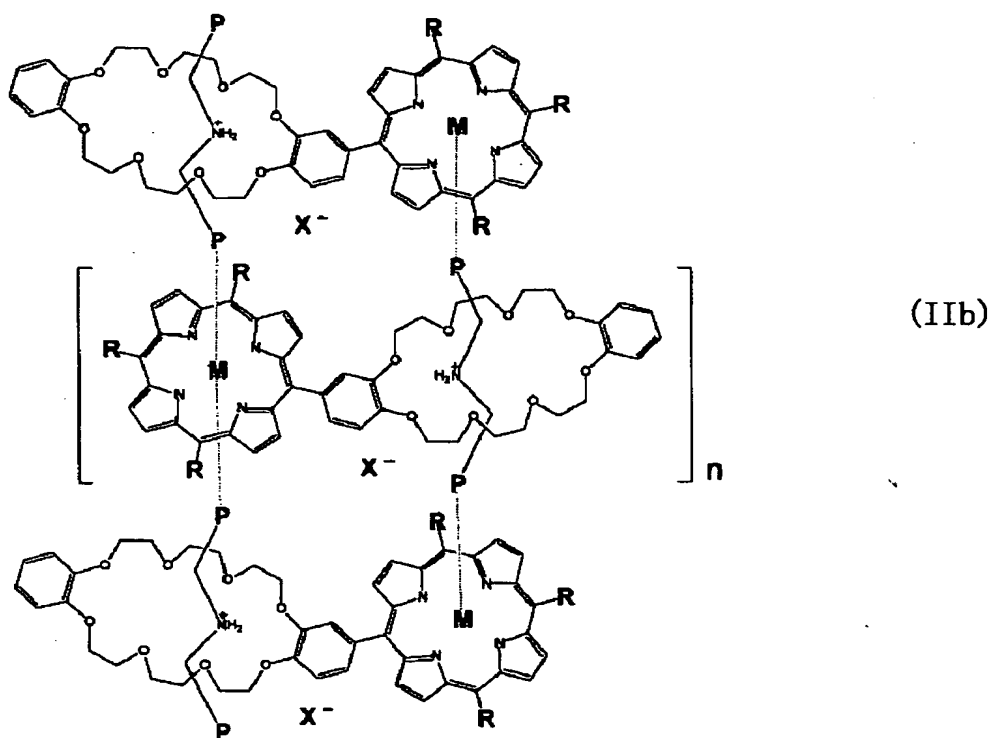
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9. A polymer represented by the following general formula (IIa):



wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, Q represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, X represents an arbitrary anion atom and n is an integer of 1 or more.

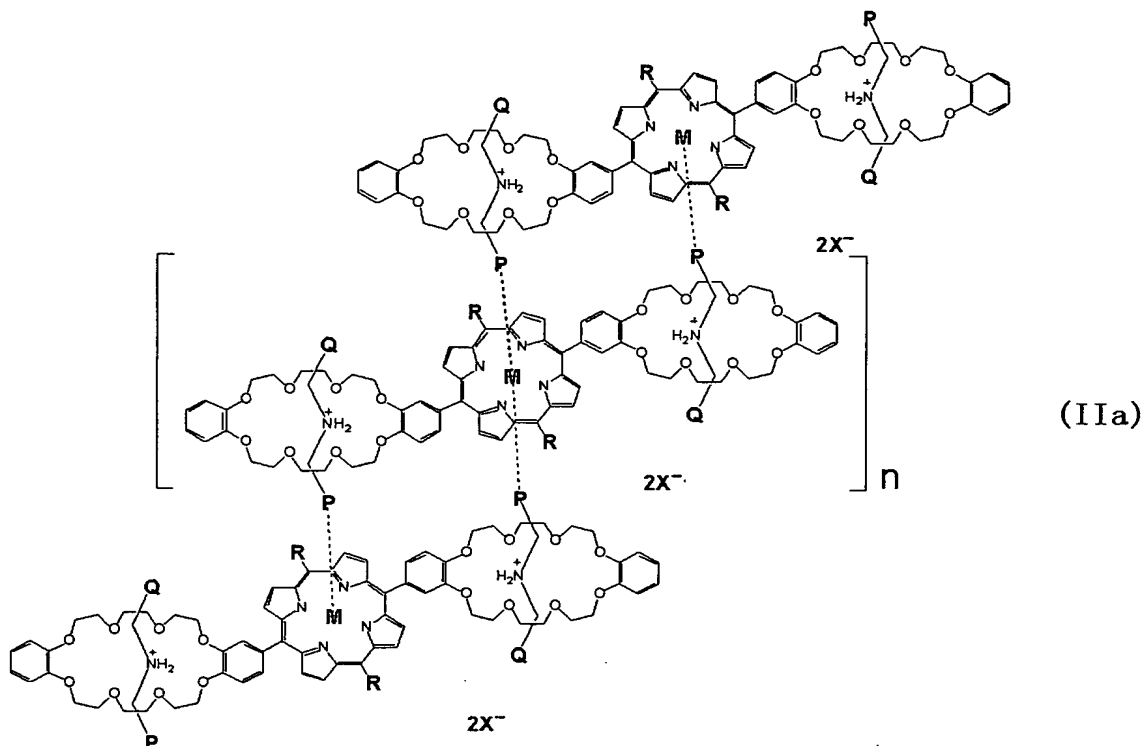
10. A polymer represented by the following general formula (IIb):



wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, X represents an arbitrary anion atom and n is an integer of 1 or more.

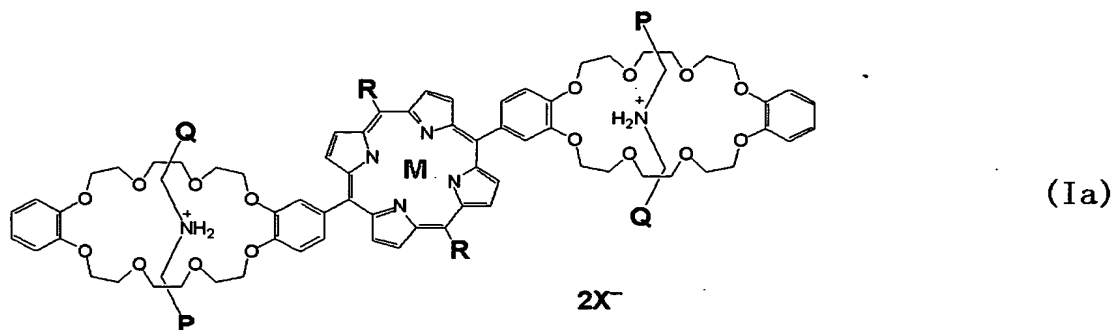
11. A process for the preparation of a polymer represented by the following general formula (IIa):





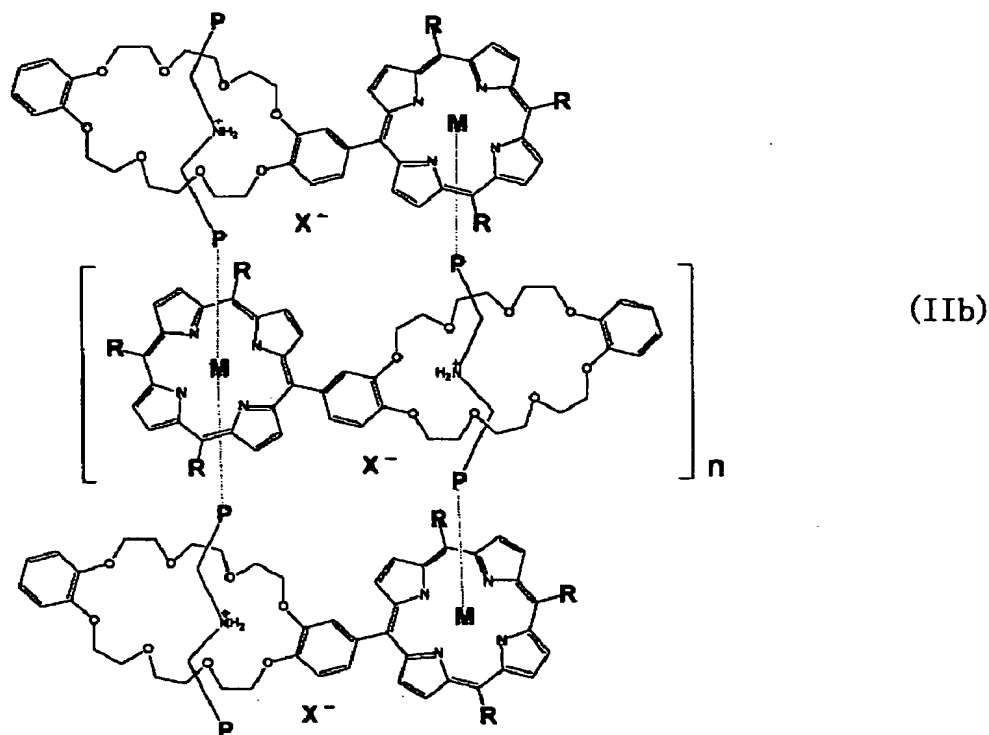
wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, Q represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, X represents an arbitrary anion atom and n is an integer of 1 or more,

said process comprising polymerizing a monomer represented by the following general formula (Ia):



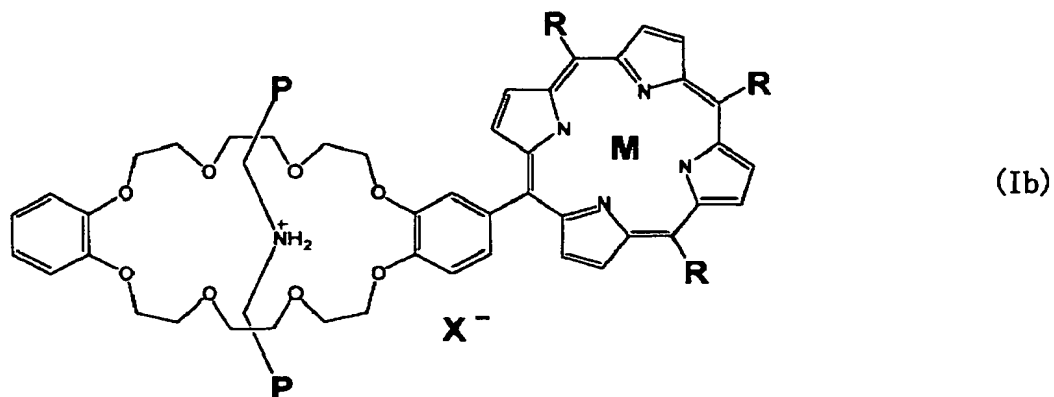
wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, Q represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom.

12. A process for the preparation of a polymer represented by the following general formula (IIb):



wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, X represents an arbitrary anion atom and n is an integer of 1 or more,

said process comprising polymerizing a monomer represented by the following general formula (Ib):



wherein M represents a transition metal coordinatable with the four nitrogen atoms and two additional ligands, P represents a group having, at a terminus thereof through a hydrocarbyl group, a nitrogen atom coordinatable with a metal, said hydrocarbyl group being selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups, R represents a hydrocarbyl group selected from aliphatic hydrocarbon groups and aromatic hydrocarbon groups and X represents an arbitrary anion atom.